

a converter connected to the [tree-type] asymmetric star wiring home network bus and having an outlet adapted for connecting to conventional single media and multimedia electronic devices;

b2 wherein the bridge adapter unit [micro-PBX is adapted to translate] translates between a public network data protocol at the inlet port and a Local Area Network (LAN) data protocol using hi-frequency, modulated network signals on the [tree-type] asymmetric star wiring home network bus, and to manage the [tree-type] asymmetric star wiring home network bus as a non-isochronous type bus, and the converter [is adapted to convert] converts signals on the [tree-type] asymmetric star wiring home network bus to a form required by one of the single media and multimedia electronic devices.

4. (Unchanged) The home network system of claim 1 wherein the single and multimedia electronic devices include telephones, personal computers, fax machines, and televisions running through set top boxes.

REMARKS

This response is to the Office Letter mailed in the above-referenced case on June 29, 1999. The Examiner has rejected claims 1-4 under 35 U.S.C. 103(a) as being unpatentable over Corley et al. (US 5,838,683) hereinafter Corley in view of Worsley et al. (US 5,594,734) hereinafter Worsley. In response to the Examiner's rejections applicant has amended independent claims 1 and 3 to more particularly point out and distinctly

claim the subject matter the applicant regards as being inventive, and to distinguish unarguably over the art cited and applied by the Examiner.

Claim 1 as amended herein now recites:

1. A multimedia data distribution system, comprising:

a distribution system distributing and delivering public network protocol signals to the level of an individual asymmetric star wiring home network bus;

a bridge adapter unit connected to the distribution system and to the asymmetric star wiring home network bus; and

a converter connected to the asymmetric star wiring home network bus and having an outlet for connecting to conventional single media and multimedia electronic devices;

wherein the bridge adapter unit translates between the public network protocol and a Local Area Network (LAN) protocol using hi-frequency, modulated network signals on the asymmetric star wiring home network bus, and to manage the asymmetric star wiring home network bus as a non-isochronous type bus, and the converter converts the hi-frequency, modulated network signals on the asymmetric star wiring home network bus to a form required by one of the single media and multimedia electronic devices.

Claim 1 is rejected by the Examiner under 103(a) as being unpatentable over Corley in view of Worsley. Applicant has amended claim 1 to clearly recite that the bridge adapter unit is adapted to translate between hi-frequency, modulated network signals and a Local Area Network (LAN) protocol on the asymmetric star wiring home network bus,

and the converter is adapted to convert the hi-frequency modulated signals on the asymmetric star wiring home network bus to a form required by one of the single media and multimedia electronic devices.

Applicant's invention is designed in one embodiment to be used in a user's home or residence, utilizing the existing wiring for the residence as the network bus. The bridge adapter unit is usually placed at the home at any point, the bridge adapter unit translates the incoming public network signals to a Local Area Network (LAN) protocol which is utilizing the existing wiring in the home, creating an asymmetric star wiring home network bus. The bridge adapter translates the public network signals to hi-frequency, modulated network signals on the asymmetric star wiring home network bus. The converter in the system can then intercept the hi-frequency, modulated network signals and convert them to a form for use by single media and multimedia electronic devices on the network.

The patentable advantage of applicant's invention over the prior art is the ability to receive the public network protocol signals, translate the signals to the hi-frequency modulated signals on the home network bus (LAN) and then convert the hi-frequency modulated signals to a form required by one of the single or multi-media devices on the network bus, **therefore negating the use of a hub type structure as taught in the prior art.**

The Examiner states that Corley discloses the invention substantially as claimed, including an interactive multimedia system that employs central and peripheral hubs that function to provide services to a plurality of clients of a call manager server.

In the art of Corely the communications network comprises a plurality of peripheral hubs coupled to a selected one of the first and second central hubs, each of the plurality of peripheral hubs having control of

associated resources within each of the plurality of peripheral hubs, a selected one of the first and second manager subsystems capable of generating a request to a selected one of the plurality of peripheral hubs for access to the resources associated with the selected one, the selected one granting the request only when the associated resources are available.

In applicant's invention a bridge adapter unit translates hi-frequency modulated network signals for use in the asymmetric wiring system, and with the use of the converters at the peripheral point are essentially capable of providing home networking for single and multimedia electronic devices that may require a variety of communication protocols without the use of a plurality of hubs as taught in the prior art.

In applicant's invention, asymmetric star-wiring can be utilized in the existing home wiring structure wherein a new outlet (converter, electronic device) can be coupled to the existing wiring at essentially any point and for substantially any distance through the use of the bridge adapter translating signals. This is not point to point wiring as shown in the references. In applicant's invention it is not necessary to have to provide a hub at every junction as is necessary in the art cited by the Examiner.

Applicant's invention incorporates a hub-less trunk, which works because of the use of high-frequency modulated network signals. Any type of high frequency modulation or direct digital connection could be used that is compatible with asymmetric star wiring (a.k.a. Christmas tree wiring). This also allows the bridge adapter unit to be added at almost any convenient point on the in-house bus.

Applicant believes that the references of Corley and Worsley clearly fails to teach or suggest a system capable of utilizing the existing asymmetric type wiring in home networks as taught in applicant's invention. Therefore, the prior art fails in support of a 103(a) rejection in regards to independent

claim 1 as amended with the arguments presented above. Applicant respectfully requests that the 103(a) rejection be withdrawn as the newly amended claim 1 is clearly patentable over the reference of Corley. Claim 2 is patentable at least as depended from a patentable claim.

Claim 3 as amended herein recites:

*3. A home network system, comprising:
a bridge adapter unit having an inlet port and connected to an asymmetric star wiring home network bus; and
a converter connected to the asymmetric star wiring home network bus and having an outlet adapted for connecting to conventional single media and multimedia electronic devices;
wherein the bridge adapter unit translates between a public network data protocol at the inlet port and a Local Area Network (LAN) data protocol using hi-frequency, modulated network signals on the asymmetric star wiring home network bus, and to manage the asymmetric star wiring home network bus as a non-isochronous type bus, and the converter converts signals on the asymmetric star wiring home network bus to a form required by one of the single media and multimedia electronic devices.*

Claim 3 is rejected by the Examiner for substantially the same reasoning as provided for claim 1. Applicant has added the same limitations to claim 3 by amendment as those added to claim 1. Therefore, claim 3 is also patentable over the art of Corley and Worsley as argued on behalf of claim 1 above. Claim 4 is patentable at least as depended from a patentable claim.

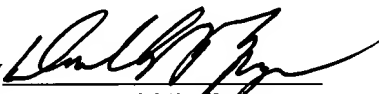
In summary applicant stresses that typical existing networks for

multimedia data distribution are of a sort which require a duplication of hardware and data paths, as in Corley and Worsley, resulting in high cost. Some systems offering a form of integration require expensive new cabling. The system of the present invention avoids such duplication and allows use of existing telephone system wiring in virtually all cases, both in and to the house.

As all of the claims standing for examination as amended have been shown to be patentable over the art of record, applicant respectfully requests reconsideration and that the present case be passed quickly to issue. If there are any time extensions due beyond any extension requested and paid with this amendment, such extensions are hereby requested. If there are any fees due beyond any fees paid with the present amendment, such fees are authorized to be deducted from deposit account 50-0534.

Respectfully Submitted,

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